



DIVISION OF
FIRE AND LIFE SAFETY

CITY OF SCOTTSDALE

SCOTTSDALE FIRE DEPARTMENT

**Interpretations
And
Applications
of**

NFPA 72 (2007 edition)

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2007 NFPA 72

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INTERPRETATIONS & APPLICATIONS
OF THE 2007 NFPA 72 Revised: 09-01-07



CHAPTER 1 – ADMINISTRATIVE

1.1.3 SPECIAL REQUIREMENTS BASED ON OCCUPANCY **ADDED**

The following special requirements shall apply based on the occupancy of the building.

GROUP E OCCUPANCIES

When a fire alarm system is required, automatic detection shall be provided throughout all useable areas. Automatic detection shall be provided by smoke detectors, except that in areas where ambient conditions prevent the use of smoke detectors (bathrooms, storage closets without electrical panels), heat detectors or fire sprinklers protecting such area may be used to automatically initiate alarm signals.

Fire alarm circuits shall be designed and installed in such a manner that the failure, removal, or destruction of any single alarm actuating or indicating device, or a break in the wiring circuit will not interfere with the normal operation of any actuating or indicating device (class "A" wiring).

GROUP I OCCUPANCIES

Notification appliances shall be chime/strobes throughout patient areas. Fire alarm circuits shall be designed and installed in such a manner that the failure, removal, or destruction of any single alarm actuating or indicating device or a break in the wiring circuit will not interfere with the normal operation of any actuating or indicating device (class "A" wiring).

GROUP S OCCUPANCIES

An automatic fire alarm system is required in enclosed (as defined by the International Building Code) parking garages. Due to the type of construction in parking garages, special consideration may be given when evaluating adequate placement of notification appliances to meet the adopted codes and standards. At the designer's option, the number of audible devices may be reduced by 50% of the standard number used in occupied spaces.

1.1.4 ALARM INSTALLATIONS IN SEPARATED/NON-SEPARATED USES ADDED

Fire alarms shall be extended throughout all portions of contiguous buildings as required by the International Building Code Section 508.3. per the applicable separated and nonseparated uses construction requirements.

1.1.5 INTERIOR TENANT NOTIFICATION ADDED

Interior Tenant Notification shall be required when monitoring of the fire sprinkler system is provided. This requirement applies if this is the 1st T.I. in this building or if other suites in this building have Interior Notification. (Group R occupancies are exempt from this requirement.) Dedicated function fire alarm control units installed to provide monitoring of fire sprinkler systems shall provide a minimum of 5 zones.

For shell buildings, one (1) horn-strobe shall be installed and operational within the interior space prior to final.

Multi-story buildings shall require a minimum of 1 Horn-Strobe per level.

For Tenant Improvements (Shell build-outs): Install 1 horn-strobe above the main door or within 3 ft. of the main door for individual tenants. When a common area is provided serving multiple tenants, install 1 horn-strobe in the common area above the main door or within 3 ft. of the main door (these requirements shall also apply to spaces commonly referred to as “vanilla” or “white” shell tenant spaces at time of shell final).

Note: These requirements may be increased based on occupancy type or at the discretion of the Fire Code Official.

This is not intended to be an ADA compliant system. (Reference: Scottsdale Revised Codes, sec. 903.4.2)

CHAPTER 4 – FUNDAMENTALS OF FIRE ALARM SYSTEMS

4.5.1.1.1 SUBMITTAL REQUIREMENTS ADDED

All plan submittals shall comply with the revised 2006 International Fire Code 901.2.2. Provide 3 sets of plans and 1 set of manufacturer's data sheets. All plan submittals logged into the One-Stop-Shop for review shall be in accordance with the standard plan review format as provided by the Arizona Automatic Fire Alarm Association. Acceptable paper size shall be limited to 24 x 36 or 30 x 42 at 1/8" scale. Up to five devices/appliances may be submitted to one stop shop on an 8½ x 11 paper document.

For digital submittals see the City of Scottsdale Web Site at:

<http://www.scottsdaleaz.gov/bldgresources/digital.asp>

Approved plans shall be available on the job site before any equipment is installed or remodeled.

An approved set of alarm plans shall be on the job site at all times and shall be at the structure or part of the structure being tested or inspected. There may be no partial submittals.

CHAPTER 5 – INITIATING DEVICES

5.13.1.1 MANUAL FIRE ALARM BOXES **ADDED**

Manual Fire alarm boxes shall be installed in H, and I occupancies as required by the 2006 International Fire Code. All other occupancies shall not have manual fire alarm boxes installed except as required by NFPA 72 6.8.5.1.2.

For Educational occupancies, the manual fire alarm box shall be located in a constantly attended location such as the administration office.

5.16.5.9 LOCATION AND INSTALLATION OF DETECTORS IN AIR DUCT SYSTEMS **AMENDED**

Where required by 5.16.5.8, remote alarm or supervisory indicators shall be installed in an accessible location and shall be clearly labeled to indicate both their function and the air-handling unit(s) associated with the detector.

5.16.5.10 DUCT SMOKE DETECTOR TESTING **ADDED**

- (1) Duct smoke detectors in buildings with a building fire alarm system (full evacuation type system) or detectors being monitored offsite will be inspected by the site fire inspector.
- (2) Such new installations of smoke detectors associated with smoke dampers and HVAC shut-offs shall be tested by the professional engineer of record, an approved testing agency or a qualified third party special inspector.
- (3) The testing agency or qualified third party special inspector shall be an approved independent third party individual or firm and shall not be the installing contractor.
- (4) The final report submitted to the fire inspector shall be signed, sealed (wet) and dated prior to certificate of occupancy.
- (5) Duct smoke detectors in buildings without a building fire alarm system (full evacuation type system) will be inspected by the site building inspector. The provisions of items 2 and 3 above shall apply.

6.8.5.5.1.1 SPRINKLER WATERFLOW MONITORING PANELS **ADDED**

In buildings not required by the amended 2006 IFC to have fire alarm systems installed, or where voluntary fire alarm systems are not installed, dedicated function fire alarm control units (waterflow monitoring) are not required to have additional devices added or monitored by such units (duct detectors, smoke detector above panel, single pull station, etc) See 2007 NFPA 72 Handbook 6.8.5.5.1.

All alternative suppressions systems (hood suppression, clean agent systems, etc) shall be monitored offsite when waterflow monitoring systems are required or provided.

In buildings where fire alarm systems are installed, all applicable alarm system devices shall installed, supervised, and/or monitored by such system in accordance with this standard and applicable codes.

6.8.5.5.1.2 FLOW SWITCH ALARM MONITORING *ADDED*

Where flow switches on fire sprinkler systems are required to be monitored, they shall be connected to the fire alarm control panel & indicate floor and/or area/zone.

6.8.5.6.3 SUPERVISORY SIGNAL INITIATION – TAMPER *ADDED*

Control valves on fire sprinkler systems that are required to be monitored shall be connected to the fire alarm control panel & indicate floor and/or area.

6.16.3.10 ELEVATOR RECALL FOR FIREFIGHTER’S SERVICE *AMENDED*

Detectors used to initiate elevator recall service shall initiate a supervisory signal unless otherwise required by the State of Arizona Elevator Inspection Department.